

## SEQUENCE LISTING

<110> AKIYAMA, Tooru  
ISHIDAO, Takefumi  
AIBA, Tomoo

<120> sFRP expression enhancing agent

<130> 3190-101

<140> US Unassigned

<141> 2006-09-28

<150> PCT/JP2005/006163

<151> 2005-03-30

<150> JP P2004-106315

<151> 2004-03-31

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<170> PatentIn version 3.1

<210> 1

<211> 2980

<212> DNA

<213> Homo sapiens

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<221> misc\_feature

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<223> human Dlg(discs large)

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Leu Ile Asp Ile Gln Glu Phe Tyr Glu Val Thr Leu Leu Asp Asn Pro  
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Lys Cys Ile Asp Arg Ser Lys Pro Ser Glu Pro Ile Gln Pro Val Asn  
65 70 75 80

Thr Trp Glu Ile Ser Ser Leu Pro Ser Ser Thr Val Thr Ser Glu Thr  
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Leu Pro Ser Ser Leu Ser Pro Ser Val Glu Lys Tyr Arg Tyr Gln Asp  
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Glu Asp Thr Pro Pro Gln Glu His Ile Ser Pro Gln Ile Thr Asn Glu  
115 120 125

Val Ile Gly Pro Glu Leu Val His Val Ser Glu Lys Asn Leu Ser Glu  
130 135 140

Ile Glu Asn Val His Gly Phe Val Ser His Ser His Ile Ser Pro Ile  
145 150 155 160

Lys Pro Thr Glu Ala Val Leu Pro Ser Pro Pro Thr Val Pro Val Ile  
165 170 175

Pro Val Leu Pro Val Pro Ala Glu Asn Thr Val Ile Leu Pro Thr Ile  
180 185 190

Pro Gln Ala Asn Pro Pro Pro Val Leu Val Asn Thr Asp Ser Leu Glu  
195 200 205

Thr Pro Thr Tyr Val Asn Gly Thr Asp Ala Asp Tyr Glu Tyr Glu Glu  
210 215 220

Ile Thr Leu Glu Arg Gly Asn Ser Gly Leu Gly Phe Ser Ile Ala Gly  
225 230 235 240

Gly Thr Asp Asn Pro His Ile Gly Asp Asp Ser Ser Ile Phe Ile Thr  
245 250 255

Lys Ile Ile Thr Gly Gly Ala Ala Ala Gln Asp Gly Arg Leu Arg Val  
260 265 270

Asn Asp Cys Ile Leu Gln Val Asn Glu Val Asp Val Arg Asp Val Thr  
275 280 285

His Ser Lys Ala Val Glu Ala Leu Lys Glu Ala Gly Ser Ile Val Arg  
290 295 300

Leu Tyr Val Lys Arg Arg Lys Pro Val Ser Glu Lys Ile Met Glu Ile  
305 310 315 320

Lys Leu Ile Lys Gly Pro Lys Gly Leu Gly Phe Ser Ile Ala Gly Gly

325

330

335

Val Gly Asn Gln His Ile Pro Gly Asp Asn Ser Ile Tyr Val Thr Lys

340

345

350

Ile Ile Glu Gly Gly Ala Ala His Lys Asp Gly Lys Leu Gln Ile Gly

355

360

365

Asp Lys Leu Leu Ala Val Asn Asn Val Cys Leu Glu Glu Val Thr His

370

375

380

Glu Glu Ala Val Thr Ala Leu Lys Asn Thr Ser Asp Phe Val Tyr Leu

385

390

395

400

Lys Val Ala Lys Pro Thr Ser Met Tyr Met Asn Asp Gly Tyr Ala Pro

405

410

415

Pro Asp Ile Thr Asn Ser Ser Ser Gln Pro Val Asp Asn His Val Ser

420

425

430

Pro Ser Ser Phe Leu Gly Gln Thr Pro Ala Ser Pro Ala Arg Tyr Ser

435

440

445

Pro Val Ser Lys Ala Val Leu Gly Asp Asp Glu Ile Thr Arg Glu Pro

450

455

460

Arg Lys Val Val Leu His Arg Gly Ser Thr Gly Leu Gly Phe Asn Ile

465

470

475

480

Val Gly Gly Glu Asp Gly Glu Gly Ile Phe Ile Ser Phe Ile Leu Ala  
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Gly Gly Pro Ala Asp Leu Ser Gly Glu Leu Arg Lys Gly Asp Arg Ile  
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Ile Ser Val Asn Ser Val Asp Leu Arg Ala Ala Ser His Glu Gln Ala  
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Ala Ala Ala Leu Lys Asn Ala Gly Gln Ala Val Thr Ile Val Ala Gln  
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Tyr Arg Pro Glu Glu Tyr Ser Arg Phe Glu Ala Lys Ile His Asp Leu  
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Arg Glu Gln Met Met Asn Ser Ser Ile Ser Ser Gly Ser Gly Ser Leu  
565 570 575

Arg Thr Ser Gln Lys Arg Ser Leu Tyr Val Arg Ala Leu Phe Asp Tyr  
580 585 590

Asp Lys Thr Lys Asp Ser Gly Leu Pro Ser Gln Gly Leu Asn Phe Lys  
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Phe Gly Asp Ile Leu His Val Ile Asn Ala Ser Asp Asp Glu Trp Trp  
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Gln Ala Arg Gln Val Thr Pro Asp Gly Glu Ser Asp Glu Val Gly Val



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Pro Val Asn Gln Gln Glu Val Asn Tyr Thr Arg Pro Val Ile Ile Leu  
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Gly Pro Met Lys Asp Arg Ile Asn Asp Asp Leu Ile Ser Glu Phe Pro  
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Asp Lys Phe Gly Ser Cys Val Pro His Thr Thr Arg Pro Lys Arg Asp  
740                      745                      750

Tyr Glu Val Asp Gly Arg Asp Tyr His Phe Val Thr Ser Arg Glu Gln  
755                      760                      765

Met Glu Lys Asp Ile Gln Glu His Lys Phe Ile Glu Ala Gly Gln Tyr  
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Asn Asn His Leu Tyr Gly Thr Ser Val Gln Ser Val Arg Glu Val Ala  
785 790 795 800

Gly Lys Gly Lys His Cys Ile Leu Asp Val Ser Gly Asn Ala Ile Lys  
805 810 815

Arg Leu Gln Ile Ala Gln Leu Tyr Pro Ile Ser Ile Phe Ile Lys Pro  
820 825 830

Lys Ser Met Glu Asn Ile Met Glu Met Asn Lys Arg Leu Thr Glu Glu  
835 840 845

Gln Ala Arg Lys Thr Phe Glu Arg Ala Met Lys Leu Glu Gln Glu Phe  
850 855 860

Thr Glu His Phe Thr Ala Ile Val Gln Gly Asp Thr Leu Glu Asp Ile  
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Trp Val Pro Ala Lys Glu Lys Leu  
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&lt;223&gt; murine Dlg(discs large) gene

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35 40 45

Leu Ile Asp Ile Gln Glu Phe Tyr Glu Val Thr Leu Leu Asp Asn Pro  
50 55 60

Lys Cys Val Asp His Ser Lys Gln Cys Glu Pro Val Gln Pro Val Thr  
65 70 75 80

Thr Trp Glu Ile Ala Ser Leu Pro Ser Thr Ala Val Thr Ser Glu Thr  
85 90 95

Leu Pro Gly Ser Leu Ser Pro Pro Val Glu Lys Tyr Arg Tyr Gln Asp  
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Glu Glu Val Leu Pro Pro Glu His Ile Ser Pro Gln Val Thr Asn Glu  
115 120 125

Val Leu Gly Pro Glu Leu Val His Val Ser Glu Lys Asn Leu Ser Glu  
130 135 140

Ile Glu Asn Val His Gly Phe Val Ser His Ser His Ile Ser Pro Ile  
145 150 155 160

Lys Pro Thr Glu Ala Val Pro Pro Ser Ser Pro Ile Val Pro Val Thr  
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Pro Ala Leu Pro Val Pro Ala Glu Ser Thr Val Val Leu Pro Ser Ala  
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Pro Gln Ala Asn Pro Pro Pro Val Leu Val Asn Thr Asp Ser Leu Glu  
195 200 205

Thr Pro Thr Tyr Val Asn Gly Thr Asp Ala Asp Tyr Glu Tyr Glu Glu  
210 215 220

Ile Thr Leu Glu Arg Gly Asn Ser Gly Leu Gly Phe Ser Ile Ala Gly  
225 230 235 240

Gly Thr Asp Asn Pro His Ile Gly Asp Asp Ser Ser Ile Phe Ile Thr  
245 250 255

Lys Ile Ile Thr Gly Gly Arg Ala Ala Gln Asp Gly Arg Leu Arg Val  
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275 280 285

His Ser Lys Ala Val Glu Ala Leu Lys Glu Ala Gly Ser Ile Val Arg  
290 295 300

Leu Tyr Val Lys Arg Arg Lys Leu Ala Ser Glu Lys Ile Met Glu Ile  
305 310 315 320

Lys Leu Ile Lys Gly Pro Lys Gly Leu Gly Phe Ser Ile Ala Gly Gly  
325 330 335

Ile Gly Asn Gln His Ile Pro Gly Asp Asn Ser Ile Tyr Val Thr Lys  
340 345 350

Ile Ile Glu Gly Gly Ala Ala His Lys Asp Gly Lys Leu Gln Ile Gly  
355 360 365

Asp Lys Leu Leu Ala Val Asn Ser Val Cys Leu Glu Glu Val Thr His  
370 375 380

Glu Glu Ala Val Thr Ala Leu Lys Asn Thr Ser Asp Phe Val Tyr Leu  
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Lys Val Ala Lys Pro Thr Ser Met Tyr Ile Asn Asp Gly Tyr Ala Pro  
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Pro Asp Ile Thr Asn Ser Ser Ser Gln Ser Val Asp Asn His Val Ser  
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Pro Ser Ser Cys Leu Gly Gln Thr Pro Thr Ser Pro Ala Arg Tyr Ser  
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Pro Ile Ser Lys Ala Val Leu Gly Asp Asp Glu Ile Thr Arg Glu Pro  
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Gly Gly Pro Ala Asp Leu Ser Gly Glu Leu Arg Lys Gly Asp Arg Ile  
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515 520 525

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Tyr Arg Pro Glu Glu Ser Arg Arg Phe Glu Ala Lys Ile His Asp Leu  
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Arg Glu Gln Met Met Asn Ser Arg Val Ser Ser Gly Ser Gly Ser Pro  
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580 585 590

Asp Lys Thr Lys Asp Ser Gly Leu Pro Ser Gln Gly Leu Asn Phe Arg  
595 600 605

Phe Gly Asp Ile Leu His Val Ile Asn Ala Ser Asp Asp Glu Trp Trp  
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Gln Ala Arg Gln Val Thr Pro Asp Gly Glu Ser Asp Glu Val Gly Val  
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Ile Pro Ser Lys Arg Arg Ala Glu Lys Lys Glu Arg Ala Arg Leu Lys  
645 650 655

Thr Val Lys Phe Asn Ser Lys Thr Arg Gly Asp Lys Gly Gln Ser Phe  
660 665 670

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675 680 685

Lys Asn Lys Asp Gln Ser Glu Gln Glu Thr Ser Asp Ala Asp Gln His  
690 695 700

Val Thr Ser Asn Ala Ser Asp Ser Glu Ser Ser Tyr Arg Gly Gln Glu  
705 710 715 720

Glu Cys Val Leu Ser Tyr Glu Pro Val Asn Gln Gln Glu Val Asn Tyr  
725 730 735

Thr Arg Pro Val Ile Ile Leu Gly Pro Met Lys Asp Arg Val Asn Asp  
740 745 750

Asp Leu Ile Ser Glu Phe Pro Asp Lys Phe Gly Ser Cys Val Pro His  
755 760 765

Thr Thr Arg Pro Lys Arg Asp Ile Glu Val Asp Gly Arg Asp Tyr His  
770 775 780

Phe Val Thr Ser Arg Glu Arg Val Glu Lys Asp Ile Gln Glu His Lys  
785 790 795 800

Phe Ile Glu Ala Gly Gln Tyr Asn Asn His Leu Tyr Gly Thr Ser Val  
805 810 815

Gln Ser Val Arg Ala Val Ala Glu Lys Gly Lys His Cys Ile Leu Asp  
820 825 830

Val Ser Gly Asn Ala Ile Lys Arg Leu Gln Ile Ala Gln Leu Tyr Pro  
835 840 845

Ile Ser Ile Phe Ile Lys Pro Lys Ser Met Glu Asn Ile Met Glu Met  
850 855 860

Asn Lys Arg Leu Thr Glu Glu Gln Ala Arg Lys Thr Phe Glu Arg Ala  
865 870 875 880

Met Lys Leu Glu Gln Glu Phe Thr Glu His Phe Thr Ala Ile Val Gln  
885 890 895

Gly Asp Thr Leu Glu Asp Ile Tyr Asn Gln Val Lys Gln Ile Ile Glu  
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Glu Gln Ser Gly Pro Tyr Ile Trp Val Leu Ala Lys Glu Lys Leu  
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<220>  
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<212> DNA

<213> Artificial

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<212> DNA

<213> Mus musculus

<220>

<221> misc\_feature

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caagttaaca acaacaattg caattcattt atgtttcagg ttcaggggga ggtgtgggag 240

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